



WHAT ARE THE MOST ESSENTIAL BUILDING DESIGN STRATEGIES TO HELP BOOST EMPLOYEE PERFORMANCE AND SATISFACTION?



WILLIAM B. "BART" BUSH Regional Commissioner, Public Buildings Service, National Capital Region, General Services Administration, Washington, D.C.

To engage employees in a workplace process that addresses their work patterns and provides them with support spaces for what they do. This includes addressing the main cause of possible dissatisfaction—a lack of acoustic comfort and speech privacy. It also means making sure that there is equal access to light by positioning enclosed offices and meeting spaces away from the windows.



LESLIE SHEPARD Chief Architect, General Services Administration

There are several inarguable facts of workplace productivity. We know that people respond positively to daylight. We also know that there is a correlation between air changes and productivity, and that workers prefer to control interior temperature.

However, sure-fire workplace strategies are complex in their execution. For example, daylight is best when diffuse; natural ventilation must not compromise security; and building occupants can neglect climate controls.



CHRISTOPHER BLUDD Principal, Studios Architecture, Washington, D.C.

The most essential design strategy has nothing to do with space at all. It has to deal with weaning the workforce away from traditional expectations and entitlements that form the core of conventional design. This means providing them the tools and the kinds of spaces that will support their tasks and giving them the responsibility to make it work. It also means moving from a passive acceptance of the workplace to active engagement.

The second most important strategy is to create a great experience. Natural light, views, great amenities, great technology and easy connectivity go a long way to improve the quality of the work experience. This is important because conventional design places barriers to all of these things in terms of putting up obstructions to light and views, limiting access to people via offices and allocating such a high percentage of their space to solo work that amenity and social spaces are minimized.

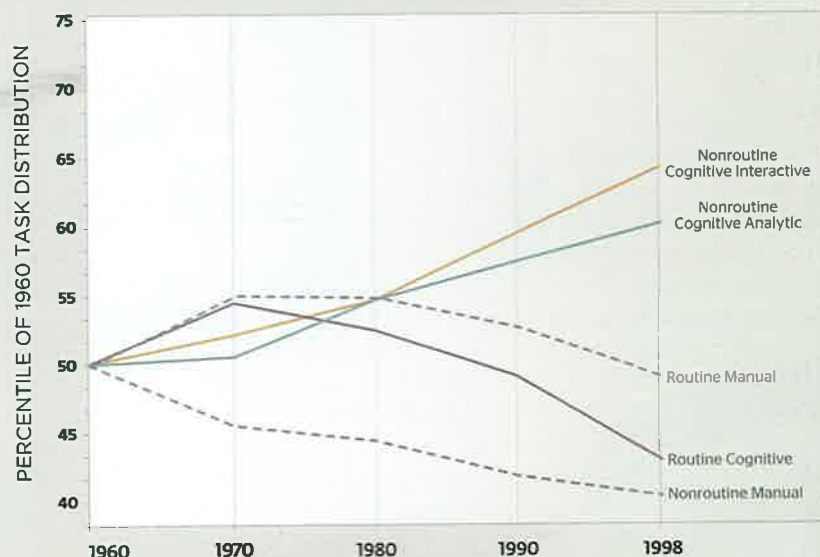
WORKPLACE DESIGN:

A Client's Take:

By Barbara Horwitz-Bennett, contributing writer

How Work Has Changed: 1960-2000

Figure 1.



Source: Autor, Levy and Murnane

A greater need for collaboration is changing the physical space of many offices, particularly those of the General Services Administration, the federal agency responsible for commissioning, operating and maintaining the nation's fleet of office buildings and court-houses. "Cube Farms" are becoming a thing of the past, making way for less permanent, certainly non-traditional office spaces, in favor of more flexible and functional stations.

GSA Workplaces

A spin on our forum format, this issue's discussion gauges an owner's perspective on what matters when it comes to office design. This month's featured office space occupier: The General Services Administration, specifically its chief architect, Leslie Shepherd, his colleague, William Bush, and one of their most frequently commissioned designers, Christopher Budd.



HOW ARE WORK PATTERNS EVOLVING, AND HOW DO WORKPLACES NEED TO ADAPT TO BEST ACCOMMODATE THIS?



LESLIE SHEPHERD: General Services Administration

Americans have become more extroverted at their workplaces, and there is a clear relationship between this phenomenon and the evolution of office design. In particular, interiors have opened up and densified. In fact, several studies have found that, since 1970, the average American workspace has decreased from 500 sq. ft. to 200 sq. ft.

The way we work continues to change in tandem. Work is being done more at meetings than in isolation, and meetings themselves can take place at communal workstations and kitchen tables, in addition to conference rooms. As co-working—office space shared between organizations—becomes a mainstream concept, and as 'Millennials' enter the workforce, we should expect more of the casual, frequent collaborations that haven't typified office activity historically. Limited budgets may drive the trend as well, since work style and space efficiency are so closely linked.



WILLIAM B. "BART" BUSH: General Services Administration

As shown in the figure (below, left), work tasks are changing and those best served by traditional "cube farms" have declined. Meanwhile, more and more tasks conform to the new work characteristics the GSA identified in its research, which are better supported by a more mobile and collaborative environment. Work requirements have become more complex and varied, and thus they are better served by a greater variety of workspaces and work choices.

GSA Building's Occupant Satisfaction

Figure 2: Survey of occupants' (spot) satisfaction levels vs. other LEED & non-LEED facilities



Source: GSA's 'Assessing Green Building Performance'



CHRISTOPHER BUDD: Studios Architecture

Workspace needs to be reduced by primarily supporting group activities, jettisoning much of the space assigned to solo work, and greatly increasing utilization by not designing to maximum capacity.

The work environment is more and more becoming a place of engagement and exchange and less about solo work. After all, why commute to be physically located near your co-workers, only to work alone? The promise of technology allows desk-bound solo workers to engage when they need to but work by themselves at home.

The entitlement of space is quickly eroding as a concept. Ownership of space, as in permanent assignment, is no longer viewed as a fundamental provision. With the pressure to reduce energy use and space, the need for higher utilization is trumping conventional planning conventions.

Much of this change of philosophy is being driven as the result of recent research commissioned by GSA: the Workplace 20-20 study, which was initiated in order for the organization to optimize its workplaces to boost employee productivity and worker satisfaction. Key findings include a need for better acoustics and noise reduction—not necessarily achieved with cube walls—and better thought-out spaces to reduce unused spaces.



SHARE SOME OF THE KEY RESEARCH FINDINGS OF THE GSA'S WORKPLACE 20-20 RESEARCH PROGRAM.



LESLIE SHEPARD: General Services Administration

WorkPlace 20-20 (www.gsa.gov/graphics/pbs/GSA_NEWWORKPLACE.pdf) reinforces the point that one size does not fit all. The report also describes the first stages of organization analysis as a kind of charrette that leads to these design concepts. Clients in both the public and private sectors want to inject more user input and design thinking at the earliest stages of their capital construction projects. GSA is undertaking several efforts to that end, and a high-visibility report like WorkPlace 20-20 provides us with tremendous leverage to see these efforts to fruition.



WILLIAM B. "BART" BUSH: General Services Administration

Post-occupancy research shows that the new workspaces [analyzed in the study] are consistently rated higher for:

- Ability to share information quickly.
- Ability to get timely answers to questions.
- Ability to locate others when needed.
- Provision of spaces for group work.
- Awareness of what others are working on.

Improvements in group collaboration, however, are moderated by culture and differences in fundamental work practices. This finding underscores the need for change management strategies that not only keep employees posted, but also help them see the negatives of the status quo, and the benefits to the organization and to them.

Post-occupancy research also links job and environmental satisfaction and work effectiveness to daylight, views, air quality, workspace and aesthetics. Surprisingly the new, more open environments did not significantly increase acoustic problems.



Workspaces analyzed in the study rate higher in awareness of what other are working on.



ACOUSTICS WAS, IN FACT, A SIGNIFICANT ISSUE UNCOVERED BY THE 20-20 RESEARCH, SO HOW ARE NEWER DESIGNS ADDRESSING THIS ISSUE?



LESLIE SHEPARD: General Services Administration

Public-sector employees' demand for greater speech privacy interestingly parallels a discussion taking place in private industry, thanks to the publication of Susan Cain's new book *Quiet: The Power of Introverts in a World That Can't Stop Talking*. Whether an employee is handling confidential government information or brainstorming a new app, sometimes we need acoustical and even physical isolation to succeed at work. Widespread dialogue about this subject guarantees a design solution. Many open offices already use so-called telephone booths and touchdown spaces, and I think we'll see revised allotments for these spaces, as well as new configurations.



WILLIAM B. "BART" BUSH: General Services Administration

Acoustics must move from a peripheral issue to a core one if these workspaces are to work. Among other interesting insights, the GSA's *Sound Matters* publication (gsasoundmatters.com) debunks old misconceptions about high partitions and large workstations as meaningful guarantees for speech privacy.



CHRISTOPHER RUDD: Studios Architecture

Acoustics are almost always an issue for the user, and much of this has to do with inadequate design, which is often due to budget considerations or lack of planning.



The GSA's *Sound Matters* publication debunks misconceptions about high partitions and large workstations as meaningful guarantees for speech privacy.

"The GSA wants to be—and is—a leader rather than a follower. There has been a tremendous amount of unheralded innovation and environmental responsibility spawned by the GSA. It makes sense that as stewards of taxpayer money, the GSA would want to be responsible. However, the true driver behind this is integrity. It's the responsible thing to do."

CHRISTOPHER BUDD, Studios Architecture



WITH A SIGNIFICANT INCREASE IN TRAVEL AND TELECOMMUTING, RESULTING IN PEOPLE SPENDING CONSIDERABLY LESS TIME IN THE OFFICE, HOW DO WORKPLACES NEED TO BOTH SUPPORT THIS WORKING STYLE AND MAKE MORE EFFICIENT USE OF THEIR REAL ESTATE?



LESLIE SHEPARD: General Services Administration

Because telecommuting represents a major shift, we should expect to help the research efforts that validate its productivity, employee satisfaction and a lightened environmental footprint. In the meantime, we will support our teleworking colleagues' physical needs in earnest. Federal employees should feel that they are getting the most from the time they do spend in the office. And we must make sure they have the electronic infrastructure to succeed at their work off site.



WILLIAM B. "BART" BUSH: General Services Administration

When GSA works with large agencies, part of our strategy is to assess the mobile readiness of the agency. One recent pilot project for a component of a large agency allowed a dramatic space utilization reduction from 240 usable sq. ft. (USF) per person to 106 USF. The group's "work pattern" supports mobility and the agency had made the IT investments and change management engagement to make this successful. The savings equated to \$900,000 per year in annual rent for one floor of a Washington D.C. office building.

Even where mobility is not an option, one of GSA's contractors was able to identify reductions in square footage up to 37%, simply by right-sizing work stations, office and support areas.



WHAT WERE THE MAIN DRIVERS BEHIND THE GSA'S DECISION TO GO FROM LEED SILVER TO LEED GOLD AS ITS MINIMUM STANDARD, IN ADDITION TO INCORPORATING MORE OF A NET-ZERO PHILOSOPHY WITH PROJECTS MOVING FORWARD?



LESLIE SHEPARD: General Services Administration

There is a more philosophical position underlying the GSA's commitment to sustainability, and that is the federal government's responsibility to spend taxpayer money efficiently and to ensure the resilience of our country, both economically and ecologically. Sustainable design helps us get there, especially since so many sustainability strategies and technologies are on the shelf.



CHRISTOPHER BUDD: Studios Architecture

The GSA wants to be—and is—a leader rather than a follower. There has been a tremendous amount of unheralded innovation and environmental responsibility spawned by the GSA. The move toward sustainability may be its most successful initiative.

There are many things driving this, including federal mandates and energy costs. Because the GSA leases or owns such a large portfolio of space, it makes sense that as stewards of taxpayer money, the GSA would want to be responsible. However, the true driver behind this is integrity. It's the responsible thing to do.

At the GSA's Workplace Prototype, an open, collaborative work environment mirrors the research findings of the GSA's Workplace 20-20 study.

